

## REVISION SHEET 2 CH 5 X

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- Q1.** If  $S_n$  denotes the sum of first  $n$  terms of an A.P., prove that  $S_{30} = 3[S_{20} - S_{10}]$ .
- Q2.** The first term of an A.P. is 5, the last term is 45 and the sum of all its terms is 400. Find the number of terms and the common difference of the A.P.
- Q3.** The 16<sup>th</sup> term of an AP is five times its third term. If its 10<sup>th</sup> term is 41, then find the sum of its first fifteen terms.
- Q4.** In an A.P., the sum of first ten terms is  $-150$  and the sum of its next ten terms is  $-550$ . Find the A.P.
- Q5.** How many terms of an A.P. 9, 17, 25, .... must be taken to give a sum of 636?
- Q6.** If the sum of the first 6 terms of an A.P. is 36 and that of the first 16 terms is 256, find the sum of the first 11 terms.
- Q7.** If the 10<sup>th</sup> term of an A.P. is 52 and the 17<sup>th</sup> term is 20 more than the 13<sup>th</sup> term, find the A.P.
- Q8.** In an A.P. of 50 terms, the sum of the first 10 terms is 210 and the sum of its last 15 terms is 2565. Find the A.P.
- Q9.** Determine the  $n^{\text{th}}$  term of the AP whose 7<sup>th</sup> term is -1 and 16<sup>th</sup> term is 17.
- Q10.** Check whether  $-150$  is a term of the AP: 11, 8, 5, 2 . . .
- Q11.** The general term of a sequence is given by  $a_n = -4n + 15$ . Is the sequence an A.P.? If so, find its 15<sup>th</sup> term and the common difference.
- Q12.** Find the sum of the following arithmetic series:  
 $(-5) + (-8) + (-11) + \dots + (-230)$
- Q13.** Find the middle term of the AP 6, 13, 20, ....., 216.
- Q14.** Which term of the AP 5, 15, 25, .... will be 130 more than its 31<sup>st</sup> term?
- Q15.** Is 0 a term of the A.P: 31, 28, 25, 25, .....? Justify your answer.
- Q16.** Find the sum of all integers between 50 and 500, which are divisible by 7.
- Q17.** Find:  
Which term in the A.P. 84, 80, 76, ..... is 0?
- Q18.** Find:  
The 15<sup>th</sup> term of the AP -40, -15, 10, 35, ....
- Q19.** Find the sum of,  
All 2 - digit natural numbers divisible by 4.
- Q20.** Show that the sum of all odd integers between 1 and 1000 which are divisible by 3 is 83667.